AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.   (Currently Amended) An apparatus for controlling an optical system at the time of capturing a still image as digital data, comprising:

an instructing part for instructing preparation for image capturing;

a calculator for detecting edges in an image in response to an instruction from said instructing part and calculating [[an]] a first evaluation value indicative of the degree of achieving focus from said edges, and for detecting contrast of the said image and obtaining a second evaluation value indicative of achieving focus from said contrast; and

a controller for driving said optical system while changing a driving speed on the basis of said first evaluation value and for determining an in-focus condition on the basis of said second evaluation value.

2.   (Original) The apparatus according to claim 1, wherein said evaluation value is obtained on the basis of a histogram of widths of said edges.

3.   (Original) The apparatus according to claim 2, wherein said evaluation value includes a statistical value obtained from said histogram.

4.   (Original) The apparatus according to claim 3, wherein said evaluation value includes an edge width corresponding to a center of gravity of said histogram.

5.   (Original) The apparatus according to claim 1, wherein said evaluation value includes the number of said edges.

6.   (Original) The apparatus according to claim 1, wherein said controller compares said evaluation value with a threshold value and changes said driving speed in accordance with a comparison result.

7.   (Original) The apparatus according to claim 1, wherein said controller compares said evaluation value with a threshold value and, after said optical system is driven in accordance with a comparison result, said evaluation value is calculated again.

8.   (Currently Amended) A method of controlling an optical system at the time of capturing a still image as digital data, comprising the steps of:

instructing preparation for image capturing;

detecting edges and contrast in an image in response to an instruction of said preparation for image capturing;

obtaining [[an]] a first evaluation value indicative of the degree of achieving focus from said edges, and obtaining a second evaluation value of the degree of achieving focus from said contrast; and

driving said optical system while changing a driving speed on the basis of said evaluation value; and

determining an in-focus condition on the basis of said second evaluation value.

9.   (Currently Amended) A recording medium on which a program for making a controller control an optical system at the time of capturing a still image as digital data is recorded, wherein execution of said program by the controller makes said controller execute the steps of:

instructing preparation for image capturing;

detecting edges and contrast in an image in response to an instruction of said preparation for image capturing;

obtaining [[an]] a first evaluation value indicative of the degree of achieving focus from said edges, and obtaining a second evaluation value of the degree of achieving focus from said contrast; and

driving said optical system while changing a driving speed on the basis of said

evaluation value; and

determining an in-focus condition on the basis of said second evaluation value.

10.   (Currently Amended) An apparatus for controlling an optical system at the
time of capturing a still image as digital data, comprising:

an instructing part for instructing preparation for image capturing;

a first calculator for detecting edges in an image and calculating a first evaluation
value indicative of the degree of achieving focus from said edges;

a second calculator for calculating contrast of said image and obtaining a second
evaluation value indicative of the degree of achieving focus from said contrast; and

a controller for driving said optical system on the basis of said first and second
evaluation values in response to an instruction of said preparation for image capturing,

wherein, irrespective of a focusing condition of said optical system, said controller
determines a driving direction of said optical system by using said second evaluation value
and calculates a driving amount of said optical system by using said first evaluation value.

11.   (Original) The apparatus according to claim 10, wherein said controller
calculates said second evaluation value in first arrangement and second arrangement of
said optical system to determine said driving direction such that a degree of achieving
focus increases along said driving direction between said first and second arrangement of
said optical system.

12.   (Original) The apparatus according to claim 11, wherein said controller
determines the driving amount between said first and second arrangements on the basis of
said first evaluation value in said first arrangement.

13.   (Original) The apparatus according to claim 10, wherein said first
evaluation value is calculated on the basis of widths of said edges.

14.   (Original) The apparatus according to claim 13, wherein said first evaluation value includes an edge width corresponding to a center of gravity of a histogram of widths of said edges.

15.   (Currently Amended) A method of controlling an optical system at the time of capturing a still image as digital data, comprising the steps of:

instructing preparation for image capturing;

detecting edges in an image in response to an instruction of said preparation for image capturing;

obtaining a first evaluation value indicative of the degree of achieving focus from said edges;

obtaining contrast of said image;

obtaining a second evaluation value indicative of the degree of achieving focus from said contrast;

determining, irrespective of a focusing condition of said optical system, a driving direction of said optical system by using said second evaluation value; and

obtaining a driving amount of said optical system by using said first evaluation value.

16.   (Currently Amended) A recording medium on which a program for making a controller control an optical system at the time of capturing a still image as digital data is recorded, wherein execution of said program by the controller makes said controller execute the step of:

instructing preparation for image capturing;

detecting edges in an image in response to an instruction of said preparation for image capturing;

obtaining a first evaluation value indicative of the degree of achieving focus from said edges

obtaining contrast of said image;

obtaining a second evaluation value indicative of the degree of achieving focus from said contrast;

determining, irrespective of a focusing condition of said optical system, a driving direction of said optical system by using said second evaluation value; and

obtaining a driving amount of said optical system by using said first evaluation value.

17.-21. (Canceled)

22.   (Currently Amended) The apparatus according to claim 1, further comprising: An apparatus for controlling an optical system at the time of capturing an image as digital data, comprising:

~~a detector for detecting edges in an image;~~

a noise eliminating part for eliminating noise components derived from noises from said edges[[;]].

~~a calculator for calculating an evaluation value indicative of the degree of achieving focus from the edges from which the noise components have been eliminated; and~~

~~a controller for driving said optical system on the basis of said evaluation value.~~

23.   (Original) The apparatus according to claim 22, wherein said noise component includes edges having an edge width of one pixel.

24.   (Original) The apparatus according to claim 22, wherein said evaluation value is calculated on the basis of a histogram of widths of the edges from which the noise components have been eliminated.

25.   (Original) The apparatus according to claim 24, wherein said evaluation value includes a statistical value obtained from said histogram.

26.   (Original) The apparatus according to claim 24, wherein said noise component is eliminated by extracting a region where an edge width falls within a predetermined range from the histogram which has not been subjected to noise component elimination yet.

27.   (Original) The apparatus according to claim 24, wherein said evaluation value includes an edge width corresponding to a center of gravity of the histogram already subjected to the noise component elimination.

28.   (Currently Amended) A method according to claim 8, further comprising;
~~A method of controlling an optical system at the time of capturing an image as digital data, comprising the steps of:~~
        ~~detecting edges in an image;~~
        eliminating noise components derived from noises from said edges[[;]].
        ~~calculating an evaluation value indicative of the degree of achieving focus from the edges from which the noise components have been eliminated; and~~
        ~~driving said optical system on the basis of said evaluation value.~~

29.   (Currently Amended) A recording medium as in claim 9, ~~on which a program for making a controller control an optical system at the time of capturing a still image as digital data is recorded,~~ wherein execution of said program by the controller makes said controller further execute the ~~steps~~ step of:
        ~~detecting edges in an image;~~
        eliminating a noise component derived from noise from said edges[[;]].
        ~~calculating an evaluation value indicative of the degree of achieving focus from the edges from which the noise components have been eliminated; and~~
        ~~driving said optical system on the basis of said evaluation value.~~

30.   (Currently Amended) An apparatus as in claim 1, wherein: ~~for controlling an optical system at the time of capturing an image as digital data, comprising:~~
        ~~a detector for detecting edges in an image;~~

~~a calculator for calculating an evaluation value indicative of the degree of achieving focus from~~ the edges <u>from which the calculator calculates the first evaluation value</u> each ~~having~~ <u>have</u> an edge width which is equal to or larger than a predetermined value<u>.</u>[[; and]]

~~a controller for driving said optical system on the basis of said evaluation value.~~

31.   (Currently Amended) A method <u>as in claim 8, wherein:</u> ~~of controlling an optical system at the time of capturing an image as digital data, comprising the steps of:~~
        ~~detecting edges in an image;~~
        ~~calculating an evaluation value indicative of the degree of achieving focus from~~ the edges <u>from which the first evaluation value is calculated</u> each ~~having~~ <u>have</u> an edge width which is equal to or larger than a predetermined value<u>.</u>[[; and]]
        ~~driving said optical system on the basis of said evaluation value.~~

32.   (Currently Amended) A recording medium <u>as in claim 9, wherein:</u> ~~on which a program for making a controller control an optical system at the time of capturing a still image as digital data is recorded, wherein execution of said program by the controller makes said controller execute the steps of:~~
        ~~detecting edges in an image;~~
        ~~calculating an evaluation value indicative of the degree of achieving focus from~~ the edges <u>from which the first evaluation value is calculated</u> each ~~having~~ <u>have</u> an edge width which is equal to or larger than a predetermined value<u>.</u>[[; and]]
        ~~driving said optical system on the basis of said evaluation value.~~

33.-36. (Canceled)

37.   (Currently Amended) An apparatus for controlling an optical system at the time of capturing an image as digital data, comprising:
        a detector for detecting edges in an image;
        a calculator for obtaining an evaluation value indicative of the degree of achieving focus from said edges; and

a controller for obtaining a driving amount of said optical system on the basis of said evaluation value,

wherein said driving amount is changed according to characteristics of said optical system, and wherein said driving amount is increased when the f-number of the optical system becomes larger.

38.   (Original) The apparatus according to claim 37, wherein the characteristics of said optical system include a focal length.

39.   (Original) The apparatus according to claim 37, wherein the characteristics of said optical system includes an aperture value.

40.   (Original) The apparatus according to claim 37, wherein said evaluation value is obtained on the basis of the histogram of widths of said edges.

41.   (Original) The apparatus according to claim 40, wherein said evaluation value includes a statistical value obtained from said histogram.

42.   (Original) The apparatus according to claim 41, wherein said evaluation value includes an edge width corresponding to a center of gravity of said histogram.

43.   (Currently Amended) A method of controlling an optical system at the time of capturing an image as digital data, comprising the steps of:

detecting edges in an image;

obtaining an evaluation value indicative of the degree of achieving focus from said edges; and

obtaining a driving amount of driving said optical system on the basis of said evaluation value,

wherein said driving amount is changed according to the characteristics of said optical system, and wherein said driving amount is increased when the f-number of the optical system becomes larger.

44.   (Currently Amended) A recording medium on which a program for making a controller control an optical system at the time of capturing a still image as digital data is recorded, wherein execution of said program by the controller makes said controller execute the steps of:

detecting edges in an image;

obtaining an evaluation value indicative of the degree of achieving focus from said edges; and

obtaining the driving amount of said optical system on the basis of said evaluation value,

wherein said driving amount is changed according to the characteristics of said optical system, and wherein said driving amount is increased when the f-number of the optical system becomes larger.